

**REMARKS**

Claims 1-12 and 18-19 are pending in the present application. By this reply, claims 1, 6, 7, 10, 18 and 19 have been amended. Claims 1, 6-7, 10 and 18-19 are independent.

The claims have been amended to clarify the invention and to improve form according to U.S. patent practice. These modifications do not add new matter and are fully supported by the original disclosure, e.g., Figs. 2, 3, 7, 8, 14 and 15 and the corresponding description in the specification including paragraphs [0034], [0041], [0051].

**Personal Interview Requested**

Applicants hereby officially request a personal interview with the Examiner prior to acting on the case. Thus, please contact Applicants' representative, Esther H. Chong at 703-205-8074, to schedule this interview prior to acting on this case.

**Rejections under 35 U.S.C § 102 and § 103**

Claims 1-3, 6-9 and 18-19 are rejected under 35 U.S.C. § 102(a) as being anticipated by Takano et al. (U.S. Patent No. 5,448,728). Claims 4-5 and 10-12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Takano et al. in view of Miyamoto et al. (U.S. Patent No. 5,867,455). These rejections, insofar as they pertain to the presently pending claims, are respectfully traversed.

According to an embodiment of Applicants' invention, after writing data requested to be overwritten into a replacement area of a write once optical disc, information on a last logical sector number of the user data area is changed in accordance with the replacement recording operation, and this information on the last logical sector number is recorded on the optical disc. According to another embodiment of Applicants' invention, the size of the outer spare area may be extended according to the size of the replacement-recorded area (into which data requested to be overwritten is recorded), and information on a last logical sector number of the user data area, which is changed according to the extension of the outer spare area, is recorded on the write once

optical disc. For instance, as shown in Figs. 3A, 3B, 7 and 8 of the present application, after the replacement recording has been performed to a replacement-recorded area, the last logical sector number (last LSN) of the user data area is moved/changed in view of the replacement-recorded area so that the actual last LSN of the user data area as recorded in the management area is always up to date in view of the replacement recording operations.

Independent claim 1 has been amended to recite, *inter alia*, “writing replacement-recording data, which is requested to be overwritten in a specified area of the disc where recording is completed.; and recording information on a last logical sector number of the user data area, which is changed in accordance with the replacement recording operation, in a management area of the disc” (emphasis added). Other independent claims have been amended to recite similar features in a varying scope. These features are neither taught nor suggested by Takano and Miyamoto, either taken singularly or in combination.

Particularly, Takano merely teaches searching the last recorded position and the non-recorded position on the optical disc, and then recording modified data (not replacement recorded data) in the next recordable position. See, e.g., Abstract, FIGs. 2, 5, 6a, 10b, 11 and 15 of Takano. Takano nowhere teaches or suggests “recording information on a last logical sector number of the user data area, which is changed in accordance with the replacement recording operation” as recited in independent claim 1. Further, in Takano, there is no replacement recording operation, but recording modified data. Also, Takano’s data area 101 allocation as shown in Fig. 2 is fixed, whereas in Applicants’ invention, the last LSN of the user data area is changed according to the replacement recording operation. That is, Takano specifically fails to teach or suggest changing the last LSN of the user data according to the replacement recording operation, as in Applicants’ claimed invention. In fact, Takano nowhere mentions the use of “last LSN of the user data” in any capacity.

Moreover, independent claim 1 further recites “recording second information indicating positions of the specified area and the replacement-recorded area portion, in the management area of the disc”. This feature is completely absent from Takano since Takano does not involve any replacement recording operation and thus the relation between the location of the original area (e.g., defective) and the location of the replacement area in lieu of the original area

according to the replacement recording operation is not at all present in Takano. Other independent claims recite similar features in a varying scope.

In addition, independent claim 1 further recites “the first information and the second information are recorded at a same update time after the writing of the replacement-recording data is performed”. This feature is also clearly absent from Takano since Takano is directed to recording the modified or updated data in its storage area 101. Other independent claims recite similar features in a varying scope.

Furthermore, Miyamoto does not overcome these deficiencies of Takano since Miyamoto is merely relied on for teaching multiple recording layers of a disc. Therefore, even if the references were combinable, assuming *arguendo*, the combination of references would still fail to teach or suggest at least the above-noted features of independent claims 1, 6-7 and 10. Accordingly, independent claims 1, 6-7 and 10 and their dependent claims (due to the dependency) are patentable over the applied references, and the rejections are improper and withdrawn.

**CONCLUSION**

For the foregoing reasons and in view of the above clarifying amendments, the Examiner is respectfully requested to reconsider and withdraw all of the objections and rejections of record, and to provide an early issuance of a Notice of Allowance.

Should there be any outstanding matters which need to be resolved in the present application, the Examiner is respectfully requested to contact Esther H. Chong (Registration No. 40,953) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

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